Burt-Utley, K. and J.F. Utley. 2014. A new species of *Begonia* (Begoniaceae) from Mexico. Phytoneuron 2014-5: 1–4.
Published 6 January 2014. ISSN 2153 733X

A NEW SPECIES OF *BEGONIA* (BEGONIACEAE) FROM MÉXICO

KATHLEEN BURT-UTLEY and JOHN F. UTLEY
Institute for Systematic Botany
Department of Cell Biology, Microbiology, and Molecular Biology
University of South Florida
Tampa, Florida 33620–5150
kburtutl@uno.edu; jutley@uno.edu

ABSTRACT

Begonia motozintlensis Burt-Utley & Utley from Chiapas, México, is described as new, illustrated, and compared to *B. strigillosa* A. Dietr. and *B. cristobalensis* Ziesenh.

Begonia in Chiapas, México is represented by about 48 species, including *B. motozintlensis* that is placed in sect. *Gireoudia* (Kl.) A. DC. because of its rhizomatous habit and staminate and pistillate flowers with two sepals and no petals (Burt-Utley 1984). It is uncommon among species in this section in its elongate rhizomes that freely branch. Like several other rhizomatous Mexican taxa in sect. *Gireoudia*, leaf blades typically have conspicuous maroon maculations, a character which is rare in the Central American taxa (Burt-Utley, pers. obs.).

BEGONIA MOTOZINTLENSIS Burt-Utley & Utley, sp. nov. **TYPE: MÉXICO. Chiapas.** About 7.3 mi N of Motozintla de Mendoza along road to Siltepec and El Porvenir which begins ca 3 mi S of Motozintla, 7400 ft, 28 Dec, 1983, *J. Utley & K. Utley 7373* (holotype: MEXU; isotypes: BM, CAS, DUKE, GH, MICH, MO, NY, US, USF). Figure 1.

Rhizomatous herbs to 45 cm long, branching freely; internodes short to elongate, often slender, (0.3–)1.4–4.3 cm, 1.5–4(–6.5) mm diam, glandular, villous and occasionally with a few lacerate scales intermixed, the trichomes 1–5 mm and a ring of lacerate scales to 3.5–5 mm often at bases of stipules and petioles. **Leaf blades** asymmetric, ovate to elliptic or obovate, 4–10(–12.5) X 2.5–7 cm, basally cordate with the lobes occasionally overlapping, apically attenuate-acuminate, marginally ciliate-dentate to ciliate-denticulate at ends of nerves or sometimes ciliate and undulate or shallowly dentate lobed, above glabrous or with scattered villi above the petiole-blade junction, below minutely glandular and sparingly villous, green or green with conspicuous maroon maculations; 8–10(–11)-palmatinerved; petioles 2.5–19(–23) cm, lanate with fine sericeous villi to (2.5–)3.5–5 mm, becoming sparingly pilose with age, and occasional narrow scales and stout villi, especially subtending the blades; stipules persistent, spreading to reflexed with age, lance-ovate, 6–25 mm X 4–8 mm, marginally entire, revolute, keeled with the keel excurrent apically or subapically, glabrous to villous or the keel only villous to villous-squamose, cystospheres present. **Inflorescences** asymmetric, shorter than to exceeding the foliage, few-many-flowered; peduncles (5–)8–29(–48) cm, glabrous to very sparingly finely pilose with trichomes to 4 mm and minute glandular hairs; lowermost bracts obovate, 10 X 8 mm, marginally densely glandular-ciliate-serrulate. **Staminate flowers** with pedicels 6–12.5(–23) mm, glabrous to occasionally minutely glandular; sepals 2, suborbicular to broadly transversely elliptic, (6–)8–12.5(–15) X (6–)8.5–13 mm, glabrous to minutely glandular, pink; petals wanting; stamens 7–12; filaments 0.4–1.5 mm, free or on a very low torus; anthers obovate to elliptic in outline, 1–2 X 0.7–0.9 mm. **Pistillate flowers** with pedicels (4–)7–13 mm, glabrous to sparingly minutely glandular; bracteoles wanting; sepals 2, elliptic to suborbicular or transversely elliptic, (5.5–)7.5–13 X 8–12.5 mm, glabrous to very sparingly minutely glandular, pink; petals wanting; styles 3, 2–3 mm, fused to ½ their length; stigmas lunate; ovary trilocular with

UNIVERSITY OF
SOUTH FLORIDA
HERBARIUM
270840
Cat. No. 09-016
CENTIMETERS
INCHES
PLANTS OF MÉXICO
Begonia motozintlensis Burt-Utley & Utley
ISOTYPE
MÉXICO. Chiapas. About 7.3 mi N of de Motozintla Mendoza along road to Siltepec and El Porvenir which begins ca 3 mi. S of Motozintla, 7400 ft.
Growing on steep rocky hillside in forested area. Rhizomes to 45 cm long. Leaf blades conspicuously maculate; sepals pink; leaf wing form variable.
John &Kathy Utley 7373
28 Dec.1983
UNIVERSITY OF SOUTH FLORIDA HERBARIUM
ISOTYPE

Figure 1. *Begonia motozintlensis*, isotype (*John & Kathy Utley 7373*, USF).

bipartite placentae, 6–12 mm, glabrous to sparingly minutely glandular. **Capsules** with pedicels (0.7–)0.9–1.5(–2) cm; bodies 0.8–1.5 cm; locule chambers externally appearing oblong, elliptic or ovate, (0.5–)0.7–1.1 X (0.4–)0.5–0.7 cm; wings variable, equal, subequal or unequal, symmetrically to asymmetrically triangular or less commonly asymmetrically ovate, the largest or primary wing 0.7–1.5 X 0.6–1.2 cm, apically acute to acuminate or rounded, the second often equal or subequal to the primary wing, symmetric to asymmetric, triangular to lunate-triangular, (0.4–)0.6–1.1(–1.3) X (0.5–)0.7–1(–1.3) cm, the third triangular, lunate-triangular or lunate, and equal or subequal to the second.

Distribution and habitat. Steep slopes and canyons of montane rain forests and cloud forests between 1900 and 2400 m in southeastern Chiapas, where it can be found growing epilithically on generally shaded steep rocky outcrops or occasionally growing epiphytically. Considering its locations in Chiapas, *B. motozintlensis* is expected to occur in adjacent Guatemala.

Additional specimens examined. **MÉXICO. Chiapas.** Mpio. Motozintla de Mendoza, 45–50 km NE of Huixtla along road to Motozintla, 1900 m, 17 Nov 1971, *Breedlove & A.R. Smith 22609* (DS); 28 Dec 1972, *Breedlove & Thorne 30977* (DS); SW side of Cerro Mozotal, 11 km NW of jct of rd to Motozintla, along rd to El Porvenir, 2100 m, 21 Nov 1976, *Breedlove 41625* (DS); 23 Nov 1981, *Breedlove & Bartholomew 55721* (DS); 30 Jan 1982, *Breedlove & Almeda 58136* (CAS); 5 km NNW of Buenos Aires on road to Siltepec, 1980 m, 6 Sept 1988, *Breedlove 69786* (CAS). Mpio. Siltepec, ridge above Siltepec on rd to Huixtla, 2000–2400 m, 18 Jan 1973, *Breedlove & A.R. Smith 31895* (DS); Barranca Honda, Siltepec, Oct-Nov 1949, *Matuda 4113* (NY).

Begonia motozintlensis is an attractive rhizomatous species with short to more often long, slender internodes that branch freely and very elongate rhizomes. These are characters that immediately distinguish *B. motozintlensis* from both *B. strigillosa* and *B. cristobalensis.* In *B. motozintlensis* internodes are (0.3–)1.4–4.3 cm X 1.5–4(–6.5) mm, in contrast to those of *B. strigillosa* that are typically unbranched and 0.2–0.8(–1.2) cm X 3–8 mm, while those of *B. cristobalensis* are 1.5–5 X 3–4 mm. Moreover, stipules of *B. motozintlensis* are lance-ovate, 6–25 X 4–8 mm, marginally entire, revolute, keeled with the keel excurrent apically or subapically, glabrous to villous or the keel only villous to villous-squamose, while those of *B. strigillosa* are asymmetric, broadly ovate to triangular, 10–19(–22) X 5–9 mm, entire and glabrous, with a glabrous to vestite keel. In *B. cristobalensis* stipules are typically smaller and asymmetrically ovate to triangular, (4.5–)6–8(–10) X 3–6 mm but are glabrous to villous with a fimbriate keel. Another difference is in the lowermost inflorescence bracts where those of *B. motozintlensis* are marginally densely glandular-ciliate-serrulate, in contrast to those of both *B. strigillosa* and *B. cristobalensis* that are entire. Capsule bodies overlap in size in all three species but differ in their wings. In *B. motozintlensis*, wings are equal, subequal or unequal and the largest or primary wing is symmetrically to asymmetrically triangular or ovate and apically acute to acuminate or rarely rounded, but in *B. strigillosa* wings are always asymmetric and subequal, with the largest asymmetrically triangular to lunate-triangular and apically rounded to acute while in *B. cristobalensis* wings are always unequal and asymmetrically ovate to broadly lunate and rounded to truncate.

ACKNOWLEDGEMENTS

Field work was made possible by grants from the Standley Smith Horticultural Trust and the American Philosophical Society. Dr. Bruce Hansen we thank for preparing the USF specimen so that it was ready for photographing by Dr. Alan Franck, who has prepared all our digital images for publication since we came to USF. We especially thank the curators of the following herbaria for the loan of specimens or use of facilities that made this research possible: CAS, DS, F, GH, MO, NY, US, and USF.

LITERATURE CITED

Burt-Utley, K. 1985. A Revision of the Central American Species of *Begonia* section *Gireoudia* (Begoniaceae). Tulane Stud. Zool. and Bot. 25: 1–131.